

INSURV Mine Warfare Inspection Guide (MHC)

Updated: 4-May-04

Pelegrini Multipurpose Crane (MPC)

Reference: NAVSEA SG811-BU-MMA-010, Rev 1, Multipurpose Crane Type GN 2/8

Current PMS: MIP 4762/004 , Mine Hunting Systems, MIP 4762/003, Mine Neutralization Systems

NSTM 613, Wire and Fiber Rope and Rigging

NSTM 589, Cranes

NSTM 700, Shipboard Ammunition and Stowage

MHC Class Advisory 03-01, Multipurpose Crane Limit Switches

EQUIPMENT		REMARKS / DISCREPANCIES
VISUAL INSPECTION		Ref: NAVSEA SG811-BU-MMA-010, Rev 1, MRC 4762/004 M-1, Q-3R, A-5, 4762/003 Q-1R, NSTM 700
(1) Is weight test current and posted?	YES / NO	RBO
(2) Are all welds free of cracks?	YES / NO	RBO
(3) Are all fasteners installed / tight?	YES / NO	
(4) Is crane clean and free of corrosion?	YES / NO	
(5) Is snubber assembly in good condition?	YES / NO	
(6) Is snubber assembly limit switch cable/connector in good condition?	YES / NO	
(7) Are all snubber assembly fasteners installed / tight?	YES / NO	
(8) Are both tripper switches installed correctly / operable?	YES / NO	
(9) Are slip ring rotor surfaces in good condition?	YES / NO	
(10) Are slip ring brushes in good condition?	YES / NO	
(11) Are slip ring brushes greater than 0.060" thick?	YES / NO	
(12) Are wire rope sheaves in good condition?	YES / NO	
(13) Is fairlead sheave pressure roller properly adjusted / operable?	YES / NO	

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(14) Are sheaves properly lubricated / rotate freely?	YES / NO	
(15) Are UCHS sheaves on MPC in good condition?	YES / NO	
(16) Are UCHS sheave bearing and washers in good condition?	YES / NO	
(17) Are Timing belts in good condition / free of cracks?	YES / NO	
(18) Are main and Jib Boom hydraulic cylinders in good condition / free of leaks?	YES / NO	
(19) Are hydraulic flex hoses / connectors in good condition / free of leaks?	YES / NO	RBO
(20) Do hydraulic valves operate freely / are they free of corrosion and leaks?	YES / NO	
(21) Are hydraulic valve handles labeled correctly and painted correct color?	YES / NO	RBO
(22) Are control valves aligned IAW current operating instructions/PMS?	YES / NO	RBO
(23) Is the Return Line Check/Relief Valve installed correctly (P/O ECP 182)?	YES / NO	RBO
(24) Do manual control servo valves operate smoothly/automatically return to neutral?	YES / NO	
(25) Are manual control servo valves properly labeled?	YES / NO	
(26) Are valve diagram and crane operating instructions placards posted?	YES / NO	
(27) Is battle short lever properly installed and labeled?	YES / NO	
(28) Does battle short lever operate smoothly?	YES / NO	
(29) Are all ground straps in good condition / tight / effective?	YES / NO	
(30) Are all electrical cables sealed at entry to junction boxes?	YES / NO	
(31) Is operator safety belt installed and in good condition?	YES / NO	RBO
(32) Are all junction box interiors free of dirt, corrosion and water?	YES / NO	
(33) Are junction box gaskets and terminal boars in good condition?	YES / NO	

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CONTROL PANEL		
(1) Is access cover gasket in good condition?	YES / NO	
(2) Is interior clean, free of corrosion , water or debris?	YES / NO	
(3) Are relay/contactor surfaces aligned and in good condition?	YES / NO	
(4) Are ground straps on ECU and motor starter cabinets installed and effective?	YES / NO	
(5) Is all wiring in good condition with no signs of overheating?	YES / NO	
(6) Do all control panel joysticks operate smoothly and return to neutral?	YES / NO	RBO
(7) Are operator controls properly labeled / legible?	YES / NO	
(8) Do all PBI's have protective rubber covers/are they in good condition?	YES / NO	
(9) Do all lights illuminate (Day / Night)?	YES / NO	
(10) Is the operator console hydraulic pressure gauge calibrated?	YES / NO	
(11) Is gauge red max-pressure needle set to 3,300 PSI?	YES / NO	
(12) Is console retaining chain installed?	YES / NO	
LUBRICATION		
		Ref: NAVSEA SG811-BU-MMA-010, Rev 1 MRC 4762/004 Q-1, Q-2R, S-2R, 4762/003 Q-2
(1) Is there evidence grease fittings have been lubricated within periodicity?	YES / NO	
(2) Are all lubrication points properly lubricated?	YES / NO	
(3) Has all excess grease been removed?	YES / NO	
(4) Is slew ring properly lubricated (Inside pedestal)	YES / NO	
(5) Is geared limit switch/transmission chain assembly lubricated/free of corrosion?	YES / NO	
(6) Does slew ring locking device operate freely?	YES / NO	

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(7) Are main boom and jib locking turnbuckles lubricated / free of corrosion?	YES / NO	
(8) Is hydraulic oil sump tank full and is oil free of contamination?	YES / NO	RBO
(9) Is slew drive motor gear case oil the correct type, clean and at the correct level?	YES / NO	RBO
(10) Is winch motor gear case oil the correct type, clean, and at the correct level?	YES / NO	RBO
WIRE ROPE / WINCH DRUM		Ref: NAVSEA SG811-BU-MMA-010, Rev 1, NSTM 613, MRC 4762/004 Q-2R, MHC Class Advisory 03-01
(1) Does wire rope pass inspection criteria specified in current PMS/NSTM?	YES / NO	RBO
(2) Is wire rope weight tested?	YES / NO	RBO
(3) Is hard eye and thimble in good condition/secure?	YES / NO	RBO
(4) Is wire rope IWRC vice Fiber Core?	YES / NO	RBO
(5) Is winch drum in good condition / free of corrosion and cracks/excess wear?	YES / NO	RBO
(6) Is the wire rope bitter end properly secured to winch drum?	YES / NO	RBO
(7) Is wire rope properly lubricated?	YES / NO	
(8) Is the "Tear Drop" installed in the correct position IAW current guidance?	YES / NO	RBO (36", +0"/-1")
OPERATIONAL CHECKS		Ref: NAVSEA SG811-BU-MMA-010, Rev 1, MRC 4762/004 Q-2R, Q-5R, 4762/003 Q-1R, MHC CI Adv. 03-01
(1) Can main boom and jib be fully extended and retracted?	YES / NO	
(2) Does crane operate smoothly through full train (between stops)	YES / NO	
(3) Do both train proximity switches operate correctly?	YES / NO	
(4) Does the crane operate correctly using the manual solenoid control valves?	YES / NO	
(5) Is the "Full drum" limit switch operable and set correctly?	YES / NO	RBO
(6) Is the "Empty drum" limit switch operable and set correctly?	YES / NO	RBO

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(7) Does "Mode 2" operate properly?	YES / NO	
(8) Does "Mode 3" operate properly?	YES / NO	
(9) Does snubber move freely when turned off?	YES / NO	
(10) Does the crane operate smoothly through a full 360 degrees?	YES / NO	
(11) Does the "Full Drum" override switch function? (If ECP 185 is installed)	YES / NO	RBO
(12) Does MPC motion stop (no drift) when operator releases joysticks?	YES / NO	RBO
MPC/BOAT CRANE CROSS CONNECT		Ref: NAVSEA SG811-BU-MMA-010, Rev 1
(1) Are all 6 cross-connect hoses in good condition/operable?	YES / NO	
(2) Do all 6 cross-connect hoses have test tags/are they within periodicity?	YES / NO	
(3) Has hydraulic fluid in hoses been changed within the last 12 months?	YES / NO	
(4) Are MPC cross connect fittings in good condition and free of paint/corrosion?	YES / NO	
(5) Are cross-connect procedures and valve alignment diagram placards posted?	YES / NO	
(6) Does the MPC and Boat Crane contain the same/compatible hydraulic oil?	YES / NO	
(7) Does MPC support boat crane operation?	YES / NO	
(8) Does boat crane support MPC operation?	YES / NO	